DETAILED ACTION

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

2.   Authorization for this examiner's amendment was given in a telephone interview

with Mr. Evan Perry on 8/02/2010, 8/04/2010.

3.   The application has been amended as follows:

- Claims 1, 7, 8, 14, 15, 23, 26, 32, 35, 43, 44, 45, 46, 47 have been amended
  as following:

1. (Currently amended) A method for transmitting data in a communication system

wherein the data is transmitted in a communication frame, the communication frame

comprising a set of time slots, the method comprising:

        receiving one or more scattering instructions from a gateway;

        dividing data corresponding to a time slot in the set of time slots into a plurality of

intervals in accordance with the one or more scattering instructions, wherein each

interval in the plurality of intervals comprises a duration which is shorter than a

duration of the time slot;

        scattering at least a portion of the plurality of intervals to one or more disparate

time slots in the set of time slots based upon the one or more scattering instructions,

wherein the portion of the plurality of intervals are scattered non-contiguously; and

        transmitting the data in accordance with locations of the plurality of intervals

within the communication frame [[.]] , wherein the one or more scattering instructions

comprise an algorithm for temporally scattering the data.

7. (Cancelled).

8. (Currently amended) A terminal device transmitting data in a communication system, comprising:

a receiver configured to receive one or more scattering instructions from a gateway device;

a processor configured to:

divide data associated with a time slot of a communication frame into a plurality of intervals in accordance with the one or more scattering instructions, wherein each interval comprises a shorter duration than the time slot;

distribute the plurality of intervals among one or more disparate time slots in the communication frame based at least in part on the one or more scattering instructions, wherein the plurality of intervals are distributed non-contiguously; and

a transmitter configured to transmit the plurality of intervals in accordance with locations of the plurality of intervals within the communication frames [[.]] ,wherein the one or more scattering instructions comprise an algorithmic indication of how to scatter the intervals.

14. (Cancelled)

15. (Currently amended) A method, comprising:

receiving a request from a terminal device for access to a communications channel;

generating a schedule of transmission for the terminal device, wherein the schedule of transmission specifies a division of data into a plurality of time intervals, each time interval shorter in duration than a time slot of a communication frame, the schedule of transmission further specifies a location of each time interval from the plurality of time intervals within the communication frame, wherein the plurality of time intervals are located within the communication frame in a non-contiguous manner;

generating one or more scattering instructions in accordance with the schedule

of transmission; ~~and~~

transmitting the one or more scattering instructions to the terminal device [[.]] ;

receiving data from the terminal device, transmitted in a scattered manner per the one or

more scattering instructions; and

reordering the data in accordance with the schedule of transmission to obtain the data in an originally intended order.

23. (Cancelled)

26. (Currently amended) An apparatus, comprising:

means for receiving a request from a terminal device for access to a communications channel and for wirelessly receiving scattering instructions;

means for generating a schedule of transmission for the terminal device, wherein the schedule of transmission specifies a partition of data into a plurality of time intervals, each time interval shorter in duration than a time slot of a communication frame, the schedule of transmission further specifies a location of each time interval from the plurality of time intervals within the communication frame, wherein the plurality of time intervals are located within the communication frame in a non-contiguous manner;

means for generating one or more scattering instructions in accordance with the schedule of transmission; ~~and~~

means for transmitting the one or more scattering instructions to the terminal device [[.]] ;

means for receiving data from the terminal device, the data transmitted in a scattered manner in accordance with the one or more scattering instructions; and

means for reordering the data in accordance with the schedule of transmission to obtain the data in an originally intended order.

32. (Cancelled)

35. (Currently amended) A terminal device for transmitting data in a communication system wherein the data is transmitted in a communication frame, the communication frame comprising a set of time slots, the terminal device comprising:

     means for receiving one or more scattering instructions from a gateway; means for partitioning data corresponding to a time slot in the set of time slots into a plurality of intervals in accordance with the one or more scattering instructions, wherein each interval in the plurality of intervals comprises a duration which is_shorter than a duration of the time slot;

     means for scattering at least a portion of the plurality of intervals to one or more disparate time slots in the set of time slots based upon the one or more scattering instructions, wherein the portion of the plurality of intervals are scattered non-contiguously; ~~and~~

     means for transmitting the data in accordance with locations of the plurality of intervals within the communication frame[[.]] ;

     <u>means for receiving data from the terminal device, the data transmitted in a scattered manner in accordance with the one or more scattering instructions; and</u>

     <u>means for reordering the data in accordance with the schedule of transmission to obtain the data in an originally intended order.</u>

43. (Currently amended) A ~~computer program product, comprising:~~ ~~a computer readable~~ <u>non-transitory</u> machine-readable storage medium <u>embedded with computer code which when being executed by a processor to perform step of</u>, comprising:

     ~~code for~~ causing at least one computer to receive one or more scattering instructions from a gateway device;

     ~~code for~~ causing the at least one computer to divide data associated with a time slot of a communication frame into a plurality of intervals in accordance with the one or

more scattering instructions, wherein each interval comprises a shorter duration than the time slot;

~~code for~~ causing the at least one computer to distribute the plurality of intervals among one or more disparate time slots in the communication frame based at least in part on the one or more scattering instructions, wherein the plurality of intervals are distributed non-contiguously; ~~and~~

~~code for~~ causing the at least one computer to transmit the plurality of intervals in accordance with locations of the plurality of intervals within the communication frames [[.]] ,wherein the one or more scattering specify an algorithm for temporally scattering the data.

44. (Currently amended) The <u>non-transitory</u> machine-readable storage medium of claim 43, further comprising code for causing the at least one computer to receive configuration information, wherein the configuration information includes the one or more scattering instructions.

45. (Currently amended) The <u>non-transitory</u> machine-readable storage medium of claim 43, wherein the one or more scattering instructions include an index to a memory that stores time scattering control information.

46. (Currently amended) The <u>non-transitory</u> machine-readable storage medium of claim 43, wherein the one or more scattering instructions include a table of information that indicates a temporal scattering of the data.

47. (Cancelled)

Allowable Subject Matter

4.   Claims 1 – 6; 8 – 11, 13; 15, 16 – 18, 20 – 22, 19; 26 – 31; 35 – 37; 43 – 46 are allowed.

5.   The following is an examiner's statement of reasons for allowance:

The prior art made of record, in single or in combination, fails to disclose explicitly the limitations of:

"dividing data corresponding to a time slot in the set of time slots into a plurality of intervals in accordance with the one or more scattering instructions, wherein each interval in the plurality of intervals comprises a duration which is shorter than a duration of the time slot; scattering at least a portion of the plurality of intervals to one or more disparate time slots in the set of time slots based upon the one or more scattering instructions, wherein the portion of the plurality of intervals are scattered non-contiguously; and transmitting the data in accordance with locations of the plurality of intervals within the communication frame, wherein the one or more scattering instructions comprise an algorithm for temporally scattering the data." as disclosed in claim 1.

"divide data associated with a time slot of a communication frame into a plurality of intervals in accordance with the one or more scattering instructions, wherein each interval comprises a shorter duration than the time slot; distribute the plurality of intervals among one or more disparate time slots in the communication frame based at least in part on the one or more scattering instructions, wherein the plurality of intervals are distributed non-contiguously; and a transmitter configured to transmit the plurality of intervals in accordance with locations of the plurality of intervals within the communication frames ,wherein the one or more scattering instructions comprise an algorithmic indication of how to scatter the intervals." as disclosed in claim 8.

"generating a schedule of transmission for the terminal device, wherein the schedule of transmission specifies a division of data into a plurality of time intervals, each time interval shorter in duration than a time slot of a communication frame, the schedule of transmission further specifies a location of each time interval from the plurality of time intervals within the communication frame, wherein the plurality of time intervals are located within the communication frame in a non-contiguous manner;

generating one or more scattering instructions in accordance with the schedule of transmission; transmitting the one or more scattering instructions to the terminal device; receiving data from the terminal device, transmitted in a scattered manner per the one or more scattering instructions; and reordering the data in accordance with the schedule of transmission to obtain the data in an originally intended order." as disclosed in claim 15.

"means for generating a schedule of transmission for the terminal device, wherein the schedule of transmission specifies a partition of data into a plurality of time intervals, each time interval shorter in duration than a time slot of a communication frame, the schedule of transmission further specifies a location of each time interval from the plurality of time intervals within the communication frame, wherein the plurality of time intervals are located within the communication frame in a non-contiguous manner; means for generating one or more scattering instructions in accordance with the schedule of transmission; means for transmitting the one or more scattering instructions to the terminal device; means for receiving data from the terminal device, the data transmitted in a scattered manner in accordance with the one or more scattering instructions; and means for reordering the data in accordance with the schedule of transmission to obtain the data in an originally intended order." as disclosed in claim 26.

"means for receiving one or more scattering instructions from a gateway; means for partitioning data corresponding to a time slot in the set of time slots into a plurality of intervals in accordance with the one or more scattering instructions, wherein each interval in the plurality of intervals comprises a duration which is shorter than a duration of the time slot; means for scattering at least a portion of the plurality of intervals to one or more disparate time slots in the set of time slots based upon the one or more scattering instructions, wherein the portion of the plurality of intervals are scattered non-contiguously; means for transmitting the data in accordance with locations of the plurality of intervals within the communication frame; means for

receiving data from the terminal device, the data transmitted in a scattered manner in accordance with the one or more scattering instructions; and means for reordering the data in accordance with the schedule of transmission to obtain the data in an originally intended order." as disclosed in claim 35.

"causing the at least one computer to divide data associated with a time slot of a communication frame into a plurality of intervals in accordance with the one or more scattering instructions, wherein each interval comprises a shorter duration than the time slot; causing the at least one computer to distribute the plurality of intervals among one or more disparate time slots in the communication frame based at least in part on the one or more scattering instructions, wherein the plurality of intervals are distributed non-contiguously; causing the at least one computer to transmit the plurality of intervals in accordance with locations of the plurality of intervals within the communication frames, wherein the one or more scattering specify an algorithm for temporally scattering the data." as disclosed in claim 43.

6.   Additionally, all of the further limitations in claims 2 – 6; 9 – 11, 13; 16 – 18, 20 – 22, 19; 27 – 31; 36 – 37; 44 – 46 are allowable, since the claims are dependent upon independent claims.

7.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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